

ISSUE/REVISION

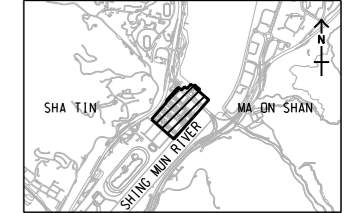
NO.	DATE	DESCRIPTION	CHK.

STATUS
 核准

SCALE
 A1 1: 1000

DIMENSION UNIT
 METRES

KEY PLAN A1 1: 50000



LEGEND:

COVERED SURFACE

TENTATIVE SAMPLING LOCATIONS:

- A1 - Inlet Fine Screen
- A4 - Digested Sludge Holding Tank

Note: Exact sampling locations to be confirmed on site

Water Surface / Sludge Surface

- F1 - Inlet Channel
- F2 - Screening Skip
- F3 - Aerated Grit Channel
- F4 - Primary Influent Channel
- F5 - Primary Sedimentation Tank
- F6 - Primary Effluent Channel
- F7 - Aeration Tank (Anoxic Zone)
- F8 - Aeration Tank (Aerobic Zone)
- F9 - Final Sedimentation Tank
- F10 - MLSS Channel
- F11 - Digester Overflow Box
- F12 - Dewatered Sludge Skip

PROJECT NO.
60334056

CONTRACT NO.
SPW 08/2015

SHEET TITLE
 LOCATION PLAN FOR THE TAP SAMPLING WITHIN STSTW

SHEET NUMBER
 Sampling Location Plan

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DATE OF SAMPLING

Thirteen sampling events of air samples were conducted by ALS staff.

Date	Sampling Event
18 th , 19 th , 20 th November 2015	1 st Sampling Event for Variation Order No. 01 (for H ₂ S, NH ₃ and SO ₂)
25 th , 26 th , 27 th November 2015	2 nd Sampling Event for Variation Order No. 01 (for H ₂ S, NH ₃ and SO ₂)
15 th -18 th February 2016	1 st Sampling Event for Variation Order No. 04 (for PAHs, Metals, VOC)
19 th , 22 nd -24 th February 2016	2 nd Sampling Event for Variation Order No. 04 (for PAHs, Metals, VOC)

Variation Order No. 01:

Samples were collected from the thirteen source locations:

Sample ID	Sampling Location	Remark
A1	Inlet Fine Screen	
A4	Digested Sludge Holding Tank	Cancelled, as the flux hood cannot be placed into the tank.
F1	Inlet Channel	
F2	Screening Skip	
F3	Aerated Grit Channel	
F4	Primary Influent Channel	
F5	Primary Sedimentation Tank	
F6	Primary Effluent Tank	
F7	Aeration Tank (Anoxic Zone)	
F8	Aeration Tank (Aerobic Zone)	
F9	Final Sedimentation Tank	
F10	MLSS Channel	
F11	Digester Overflow Box	
F12	Dewatered Sludge Skip	

Variation Order No. 02:

Samples were collected from the four source locations:

Sample ID	Sampling Location
F1	Inlet Channel
F5	Primary Sedimentation Tank
F8	Aeration Tank (Aerobic Zone)
F9	Final Sedimentation Tank

TEST PARAMETERS

Variation Order No. 01:

The laboratory used the method required in the tender document to conduct the testing to the required reporting limits as follow:

Item	Chemical Compound	ALS Test Method	ALS Laboratory Reporting Limit	Chemical Category
1	Hydrogen Sulphide (H ₂ S)	ISC Method 701	50ppbv	Others
2	Ammonia (NH ₃)	NIOSH 6015	10ppbv	Others
3	Sulphur Dioxide (SO ₂)	OSHA ID104	50ppbv	Others

Variation Order No. 02:

The laboratory used the method required in the tender document to conduct the testing to the required reporting limits as follow:

Item	Chemical Compound	ALS Test Method	ALS Laboratory Reporting Limit
Polyaromatic Hydrocarbons (PAHs)			
1	Naphthalene	NIOSH 5515 & USEPA 8270	0.75ug/m ³
2	Acenaphthylene		0.75ug/m ³
3	Acenaphthene		0.75ug/m ³
4	Fluorene		0.75ug/m ³
5	Phenanthrene		0.75ug/m ³
6	Anthracene		0.75ug/m ³
7	Fluoranthene		0.75ug/m ³
8	Pyrene		0.75ug/m ³
9	Benz(a)anthracene		0.75ug/m ³
10	Chrysene		0.75ug/m ³
11	Benzo(b)fluoranthene		0.75ug/m ³
12	Benzo(k)fluoranthene		0.75ug/m ³
13	Benzo(e)pyrene		0.75ug/m ³
14	Benzo(a)pyrene		0.75ug/m ³



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15	Perylene	0.75ug/m ³
16	Indeno(1,2,3-cd)pyrene	0.75ug/m ³
17	Dibenz(a,h)anthracene	0.75ug/m ³
18	Benzo(g,h,i)perylene	0.75ug/m ³

Item	Chemical Compound	ALS Test Method	ALS Laboratory Reporting Limit
Volatile Organic Compounds (VOCs)			
1	Dichlorodifluoromethane	USEPA TO-14A	1.0 ppbv
2	Vinyl chloride		1.0 ppbv
3	Methanol		100 ppbv
4	Ethanol		100 ppbv
5	Dimethyl sulfide		1.0 ppbv
6	Carbon disulfide		1.0 ppbv
7	Methylene chloride		1.0 ppbv
8	Chloroform		1.0 ppbv
9	Methyl propionate		1.0 ppbv
10	2-Butanol		1.0 ppbv
11	1,1,1-Trichloroethane		1.0 ppbv
12	1,2-Dichloroethane		1.0 ppbv
13	Benzene		1.0 ppbv
14	Carbon tetrachloride		1.0 ppbv
15	Di-n-propyl ether		1.0 ppbv
16	n-Heptane		1.0 ppbv
17	Trichloroethene		1.0 ppbv
18	Ethyl propionate		1.0 ppbv
19	Methyl butyrate		1.0 ppbv
20	Methanethiol		1.0 ppbv
21	Toluene		1.0 ppbv
22	Ethyl butyrate		1.0 ppbv
23	Trichlorofluoromethane		1.0 ppbv



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24	n-Propyl benzene	1.0 ppbv	
25	n-Octane	1.0 ppbv	
26	Propyl propionate	1.0 ppbv	
27	1,2-Dibromoethane	1.0 ppbv	
28	n-Butyl acetate	1.0 ppbv	
Item	Chemical Compound	ALS Test Method	ALS Laboratory Reporting Limit
29	Tetrachloroethene	USEPA TO-14A	1.0 ppbv
30	Ethylbenzene		1.0 ppbv
31	m-/p-Xylene		2.0 ppbv
32	o-Xylene		1.0 ppbv
33	n-Nonane		1.0 ppbv
34	Ethanethiol		1.0 ppbv
35	alpha-Pinene		1.0 ppbv
36	Styrene		1.0 ppbv
37	beta-Pinene		1.0 ppbv
38	n-Decane		1.0 ppbv
39	m-Dichlorobenzene		1.0 ppbv
40	p-Dichlorobenzene		1.0 ppbv
41	d-Limonene		1.0 ppbv
42	o-Dichlorobenzene		1.0 ppbv
43	n-Butyl benzene		1.0 ppbv
44	n-Undecane		1.0 ppbv
45	1-Butanethiol		1.0 ppbv
46	1,3,5-Trimethylbenzene		1.0 ppbv
47	1,2,4-Trimethylbenzene		1.0 ppbv
48	Terpenes ^{Note 1}		2.0 ppbv
49	Xylenes ^{Note 2}		3.0 ppbv
50	Dichlorobenzenes ^{Note 3}		3.0 ppbv
51	n-Hexane		1.0 ppbv
52	Chlorobenzene		1.0 ppbv
53	Methyl chloride		1.0 ppbv
54	1,1,2,2-Tetrachloroethane		1.0 ppbv



55	1,2,4-Trichlorobenzene	1.0 ppbv
56	1,1,2-Trichloroethane	1.0 ppbv

Note:

1. Terpene is the sum of the result of alpha-Pinene and beta-Pinene.
2. Xylene is the sum of the result of o-xylene, m-xylene and p-xylene.
3. Dichlorobenzene is the sum of the result of o-Dichlorobenzene, m-Dichlorobenzene and p-Dichlorobenzene.

METHOD STATEMENT**Variation Order No. 01:**

To determine the chemical emission from the sampling location, a flux hood was placed on the emission surface of the sampling locations. A stream of nitrogen gas, at an air flow rate (~5 L/min), was introduced into the flux hood to introduce air on the surface of the sampling location. The H₂S, NH₃ and SO₂ gas sample were collected by below sampling methods.

The Specific Emission Rate (SER) at each area source of each chemical was calculated by the following equation:

$$\text{SER (ug/m}^2\cdot\text{s)} = \frac{\text{concentration (ug/m}^3\text{)} \times \text{Air flow rate inside hood (0.00008333 m}^3\text{/s)}}{\text{Covered water surface area (0.155 m}^2\text{)}}$$

- **Hydrogen Sulphide (H₂S)**

Method Ref: ISC Method 701

Air pump was used to collect air sample through an alkaline solution at each sampling location at 1 L/min for 60 minutes where sulphide was reacted and precipitated. The sulphide content in the solution was analysed by colorimetric method in the laboratory and reported as the concentration of H₂S versus the volume of air collected.

- **Ammonia**

Method Ref: NIOSH6015

Air pump was used to collect air sample through an acid-treated silica gel sorbent tube at each sampling location at 1 L/min for 60 minutes. The sampled silica gel was extracted in the laboratory with water and analysed by colorimetric method. The ammonia concentration in air was calculated and reported versus the volume of air collected.

- **Sulphur Dioxide**

Method Ref: OSHA ID104

Air pump was used to collect air sample through a glass bubbler containing 0.3 N hydrogen peroxide solution at each sampling location at 1 L/min for 60 minutes. The amount of sulphur dioxide in the air was determined by analyse the sulphate ion in the absorption solution by ion chromatography. Sample was delivered to ALS US laboratory for analysis.

**Variation Order No. 04:**

To determine the chemical emission from the sampling location, a flux hood was placed on the emission surface of the sampling locations. A stream of nitrogen gas, at an air flow rate (~10 L/min), was introduced into the flux hood to introduce air on the surface of the sampling location. The PAHs, Heavy Metals and VOCs gas sample were collected by below sampling methods.

The Specific Emission Rate (SER) at each area source of each chemical was calculated by the following equation:

$$\text{SER (ug/m}^2\cdot\text{s)} = \frac{\text{concentration (ug/m}^3\text{)} \times \text{Air flow rate inside hood (0.00016667 m}^3\text{/s)}}{\text{Covered water surface area (0.155 m}^2\text{)}}$$

- **Polyaromatic Hydrocarbons (PAHs)**

Method Ref: NIOSH 5515 & USEPA 8270

Air was sampled by filter paper and sorbent tube for a period of time. At each location, 2 samples were sampled simultaneously. Then the filter paper and sorbent tube were extracted by organic solvent. The extract was introduced into the chromatographic column and analysed by GC-MSD. The concentration of PAH was calculated by comparing the peak area with the reference standard.

- **Volatile Organic Compounds (VOCs)**

Method Ref: USEPA TO-14A

Canister was used to collect 6 litre of air sample from each sampling location for 1 hour.

In according to the GCMS testing approach as stated in USEPA Method TO-14A, a known volume of air sample was quantitatively transferred into a pre-concentrator when the sample was dehydrated and the VOCs was trapped. The pre-concentrator was then flushed with inert and heated up to introduce the VOCs into GCMS for analysis.



RESULT:

VARIATION ORDER NO. 01

Hydrogen Sulphide (H₂S)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-061	A4-3	18-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	Cancelled		
HK1536183-062	F9-3	18-11-15	09:29 – 10:29	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-063	F10-3	18-11-15	10:52 – 11:52	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-064	F11-3*	18-11-15	15:52 – 16:52	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	26300	37300	20.0
HK1536183065	F12-3	18-11-15	14:01 – 15:01	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	69	97	0.052
HK1536183-066	Blk-3-1	18-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---
HK1536183-067	F4-3	19-11-15	14:50 – 15:50	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	23100	32700	17.6
HK1536183-068	F5-3	19-11-15	12:06 – 13:06	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	62000	87800	47.2
HK1536183-069	F6-3	19-11-15	13:25 – 14:25	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	51100	72400	38.9
HK1536183-070	F7-3	19-11-15	10:35 – 11:35	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-071	F8-3	19-11-15	09:16 – 10:16	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-072	Blk-3-2	19-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---
HK1536183-073	A1-3	20-11-15	11:35 – 12:35	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	62500	88600	47.6



Remark: * The sampling was conducted in Digester 9.

VARIATION ORDER NO. 01

Hydrogen Sulphide (H₂S) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-074	F1-3	20-11-15	10:10 – 11:10	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	27100	38400	20.6
HK1536183-075	F2-3	20-11-15	15:25 – 16:25	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	919	1300	0.7
HK1536183-076	F3-3	20-11-15	13:20 – 14:20	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	77400	110000	59.0
HK1536183-077	Blk-3-3	20-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---
HK1536183-078	A4-4	25-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	Cancelled		
HK1536183-079	F9-4	25-11-15	09:57 – 10:57	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-080	F10-4	25-11-15	10:25 – 11:25	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-081	F11-4*	25-11-15	15:42 – 16:42	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	19000	26900	14.4
HK1536183082	F12-4	25-11-15	13:44 – 14:44	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-083	Blk-4-1	25-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---
HK1536183-084	F4-4	26-11-15	16:16 – 17:16	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	1790	2500	1.4
HK1536183-085	F5-4	26-11-15	13:02 – 14:02	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	15300	21700	11.7
HK1536183-086	F6-4	26-11-15	14:48 – 15:48	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	19900	28200	15.2
HK1536183-087	F7-4	26-11-15	11:34 – 12:34	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038

Remark: * The sampling was conducted in Digester 12.



VARIATION ORDER NO. 01

Hydrogen Sulphide (H₂S) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-088	F8-4	26-11-15	10:07 – 11:07	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	<0.038
HK1536183-089	Blk-4-2	26-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---
HK1536183-090	A1-4	27-11-15	11:10 – 12:10	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	40000	56700	30.5
HK1536183-091	F1-4	27-11-15	12:45 – 13:45	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	53700	76000	40.9
HK1536183-092	F2-4	27-11-15	15:00 – 16:00	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	156	221	0.1
HK1536183-093	F3-4	27-11-15	09:25 – 10:25	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	9760	13800	7.4
HK1536183-094	Blk-4-3	27-11-15	---	Hydrogen Sulphide (H ₂ S)	<50	<71	<0.038	<50	<71	---



VARIATION ORDER NO. 01

Ammonia (NH₃)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-061	A4-3	18-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	Cancelled		
HK1536183-062	F9-3	18-11-15	09:29 – 10:29	Ammonia (NH ₃)	<10	<7	<0.0038	13	10	0.0051
HK1536183-063	F10-3	18-11-15	10:52 – 11:52	Ammonia (NH ₃)	<10	<7	<0.0038	26	18	0.0098
HK1536183-064	F11-3*	18-11-15	15:52 – 16:52	Ammonia (NH ₃)	<10	<7	<0.0038	136	96	0.0518
HK1536183065	F12-3	18-11-15	14:01 – 15:01	Ammonia (NH ₃)	<10	<7	<0.0038	253	179	0.0963
HK1536183-066	Blk-3-1	18-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---
HK1536183-067	F4-3	19-11-15	14:50 – 15:50	Ammonia (NH ₃)	<10	<7	<0.0038	50	36	0.0191
HK1536183-068	F5-3	19-11-15	12:06 – 13:06	Ammonia (NH ₃)	<10	<7	<0.0038	74	53	0.0283
HK1536183-069	F6-3	19-11-15	13:25 – 14:25	Ammonia (NH ₃)	<10	<7	<0.0038	76	54	0.0291
HK1536183-070	F7-3	19-11-15	10:35 – 11:35	Ammonia (NH ₃)	<10	<7	<0.0038	101	72	0.0384
HK1536183-071	F8-3	19-11-15	09:16 – 10:16	Ammonia (NH ₃)	<10	<7	<0.0038	62	44	0.0237
HK1536183-072	Blk-3-2	19-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---
HK1536183-073	A1-3	20-11-15	11:35 – 12:35	Ammonia (NH ₃)	<10	<7	<0.0038	78	56	0.0298

Remark: * The sampling was conducted in Digester 9.



VARIATION ORDER NO. 01

Work Order: HK1536183

Ammonia (NH₃) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-074	F1-3	20-11-15	10:10 – 11:10	Ammonia (NH ₃)	<10	<7	<0.0038	81	57	0.0307
HK1536183-075	F2-3	20-11-15	15:25 – 16:25	Ammonia (NH ₃)	<10	<7	<0.0038	51	36	0.0194
HK1536183-076	F3-3	20-11-15	13:20 – 14:20	Ammonia (NH ₃)	<10	<7	<0.0038	83	59	0.0315
HK1536183-077	Blk-3-3	20-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---
HK1536183-078	A4-4	25-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	Cancelled		
HK1536183-079	F9-4	25-11-15	09:57 – 10:57	Ammonia (NH ₃)	<10	<7	<0.0038	80	57	0.0306
HK1536183-080	F10-4	25-11-15	10:25 – 11:25	Ammonia (NH ₃)	<10	<7	<0.0038	104	74	0.0398
HK1536183-081	F11-4*	25-11-15	15:42 – 16:42	Ammonia (NH ₃)	<10	<7	<0.0038	480	340	0.1828
HK1536183082	F12-4	25-11-15	13:44 – 14:44	Ammonia (NH ₃)	<10	<7	<0.0038	1740	1230	0.6625
HK1536183-083	Blk-4-1	25-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---
HK1536183-084	F4-4	26-11-15	16:16 – 17:16	Ammonia (NH ₃)	<10	<7	<0.0038	137	97	0.0522
HK1536183-085	F5-4	26-11-15	13:02 – 14:02	Ammonia (NH ₃)	<10	<7	<0.0038	150	106	0.0570
HK1536183-086	F6-4	26-11-15	14:48 – 15:48	Ammonia (NH ₃)	<10	<7	<0.0038	194	137	0.0738
HK1536183-087	F7-4	26-11-15	11:34 – 12:34	Ammonia (NH ₃)	<10	<7	<0.0038	141	100	0.0537

Remark: * The sampling was conducted in Digester 12.



VARIATION ORDER NO. 01

Work Order: HK1536183

Ammonia (NH₃) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-088	F8-4	26-11-15	10:07 – 11:07	Ammonia (NH ₃)	<10	<7	<0.0038	103	73	0.0393
HK1536183-089	Blk-4-2	26-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---
HK1536183-090	A1-4	27-11-15	11:10 – 12:10	Ammonia (NH ₃)	<10	<7	<0.0038	300	213	0.1142
HK1536183-091	F1-4	27-11-15	12:45 – 13:45	Ammonia (NH ₃)	<10	<7	<0.0038	174	123	0.0663
HK1536183-092	F2-4	27-11-15	15:00 – 16:00	Ammonia (NH ₃)	<10	<7	<0.0038	189	134	0.0720
HK1536183-093	F3-4	27-11-15	09:25 – 10:25	Ammonia (NH ₃)	<10	<7	<0.0038	359	254	0.1366
HK1536183-094	Blk-4-3	27-11-15	---	Ammonia (NH ₃)	<10	<7	<0.0038	<10	<7	---



VARIATION ORDER NO. 01

Work Order: HK1536183

Sulphur Dioxide (SO₂)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-061	A4-3	18-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	Cancelled		
HK1536183-062	F9-3	18-11-15	09:29 – 10:29	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	104	277	0.149
HK1536183-063	F10-3	18-11-15	10:52 – 11:52	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	89	237	0.127
HK1536183-064	F11-3*	18-11-15	15:52 – 16:52	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	1180	3150	1.694
HK1536183065	F12-3	18-11-15	14:01 – 15:01	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	65	173	0.093
HK1536183-066	Blk-3-1	18-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---
HK1536183-067	F4-3	19-11-15	14:50 – 15:50	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	523	1390	0.749
HK1536183-068	F5-3	19-11-15	12:06 – 13:06	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	500	1330	0.717
HK1536183-069	F6-3	19-11-15	13:25 – 14:25	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	493	1310	0.706
HK1536183-070	F7-3	19-11-15	10:35 – 11:35	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	51	135	0.073
HK1536183-071	F8-3	19-11-15	09:16 – 10:16	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	<0.072
HK1536183-072	Blk-3-2	19-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---
HK1536183-073	A1-3	20-11-15	11:35 – 12:35	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	486	1300	0.696

Remark: * The sampling was conducted in Digester 9.



VARIATION ORDER NO. 01

Work Order: HK1536183

Sulphur Dioxide (SO₂) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR			Result		
					ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-074	F1-3	20-11-15	10:10 – 11:10	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	450	1200	0.645
HK1536183-075	F2-3	20-11-15	15:25 – 16:25	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	176	470	0.253
HK1536183-076	F3-3	20-11-15	13:20 – 14:20	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	411	1100	0.590
HK1536183-077	Blk-3-3	20-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---
HK1536183-078	A4-4	25-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	Cancelled		
HK1536183-079	F9-4	25-11-15	09:57 – 10:57	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	72	192	0.103
HK1536183-080	F10-4	25-11-15	10:25 – 11:25	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	52	138	0.074
HK1536183-081	F11-4*	25-11-15	15:42 – 16:42	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	441	1180	0.632
HK1536183082	F12-4	25-11-15	13:44 – 14:44	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	91	243	0.131
HK1536183-083	Blk-4-1	25-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---
HK1536183-084	F4-4	26-11-15	16:16 – 17:16	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	213	568	0.306
HK1536183-085	F5-4	26-11-15	13:02 – 14:02	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	813	2170	1.165
HK1536183-086	F6-4	26-11-15	14:48 – 15:48	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	423	1130	0.607
HK1536183-087	F7-4	26-11-15	11:34 – 12:34	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	51	137	0.073

Remark: * The sampling was conducted in Digester 12.



Sulphur Dioxide (SO₂) (Con't)

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR		Result			
					ppbv	ug/m ³	ppbv	ug/m ³	Specific Emission Rate (ug/m ² .s)	Specific Emission Rate (ug/m ² .s)
HK1536183-088	F8-4	26-11-15	10:07 – 11:07	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	78	207	0.111
HK1536183-089	Blk-4-2	26-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---
HK1536183-090	A1-4	27-11-15	11:10 – 12:10	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	323	860	0.462
HK1536183-091	F1-4	27-11-15	12:45 – 13:45	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	530	1410	0.760
HK1536183-092	F2-4	27-11-15	15:00 – 16:00	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	68	180	0.097
HK1536183-093	F3-4	27-11-15	09:25 – 10:25	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	1140	3050	1.640
HK1536183-094	Blk-4-3	27-11-15	---	Sulphur Dioxide (SO ₂)	<50	<133	<0.072	<50	<133	---



**VARIATION ORDER NO. 02
Polyaromatic Hydrocarbons (PAHs)**

Sample ID	Client ID	Sampling Date	Sampling Time	Analyte	LOR		Specific Emission Rate (ug/m ² .s)		Result	
					ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
HK1536183-115	F9-5	15-02-16	10:18 – 18:18	Naphthalene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-116	Blk-6-1	15-02-16	---	Acenaphthylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-117	F5-5	16-02-16	08:40 – 16:40	Acenaphthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-118	Blk-6-2	16-02-16	---	Fluorene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-119	F9-5	15-02-16	10:18 – 18:18	Phenanthrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-120	Blk-6-1	15-02-16	---	Anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-121	F5-5	16-02-16	08:40 – 16:40	Fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-122	Blk-6-2	16-02-16	---	Pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-123	F9-5	15-02-16	10:18 – 18:18	Benz(a)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-124	Blk-6-1	15-02-16	---	Chrysene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-125	F5-5	16-02-16	08:40 – 16:40	Benzo(b)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-126	Blk-6-2	16-02-16	---	Benzo(k)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
HK1536183-127	F9-5	15-02-16	10:18 – 18:18	Benzo(e)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴

6. VARIATION ORDER NO. 04



Polyaromatic Hydrocarbons (PAHs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:18 – 18:18		---		08:40 – 16:40		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Benzo(a)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Indeno(1,2,3-cd)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Dibenz(a,h)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(g,h,i)perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



**VARIATION ORDER NO. 02
Polyaromatic Hydrocarbons (PAHs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	08:26 – 16:26		---		08:50 – 16:50		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Naphthalene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	0.80	8.6x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Acenaphthylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Acenaphthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluorene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Phenanthrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(a)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Chrysene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(b)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(k)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(e)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



Polyaromatic Hydrocarbons (PAHs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	08:26 – 16:26		---		08:50 – 16:50		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Benzo(a)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Indeno(1,2,3-cd)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Dibenz(a,h)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(g,h,i)perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



**VARIATION ORDER NO. 02
Polyaromatic Hydrocarbons (PAHs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 – 16:25		---		08:25 – 16:25		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Naphthalene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Acenaphthylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Acenaphthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluorene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Phenanthrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benz(a)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Chrysene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(b)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(k)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(e)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



Polyaromatic Hydrocarbons (PAHs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 – 16:25		---		08:25 – 16:25		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Benzo(a)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Indeno(1,2,3-cd)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Dibenz(a,h)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(g,h,i)perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



**VARIATION ORDER NO. 02
Polyaromatic Hydrocarbons (PAHs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:13 – 16:13		---		08:20 – 16:20		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Naphthalene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	1.24	1.3x10 ⁻³	<0.75	<8.1x10 ⁻⁴
Acenaphthylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Acenaphthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluorene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Phenanthrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benz(a)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Chrysene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(b)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(k)fluoranthene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(e)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴



VARIATION ORDER NO. 02
Polyaromatic Hydrocarbons (PAHs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:13 – 16:13		---		08:20 – 16:20		---	
Analyte	LOR							
	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)	ug/m ³	Specific Emission Rate (ug/m ² .s)
Benzo(a)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Indeno(1,2,3-cd)pyrene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Dibenz(a,h)anthracene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴
Benzo(g,h,i)perylene	0.75	8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴	<0.75	<8.1x10 ⁻⁴

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VARIATION ORDER NO. 02
Volatile Organic Compounds (VOCs)

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:34 – 11:34		---		09:00 – 10:00		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Dichlorodifluoromethane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Vinyl chloride	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methanol	100	0.1	<100	<0.1	<100	<0.1	<100	<0.1
Ethanol	100	0.2	<100	<0.2	<100	<0.2	<100	<0.2
Dimethyl sulfide	1.0	0.003	<1.0	<0.003	<1.0	0.020	<1.0	<0.003
Carbon disulfide	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methylene chloride	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chloroform	1.0	0.005	<1.0	<0.005	<1.0	0.007	<1.0	<0.005
Methyl propionate	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
2-Butanol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
1,1,1-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
1,2-Dichloroethane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Benzene	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:34 – 11:34		---		09:00 – 10:00		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Carbon tetrachloride	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
Di-n-propyl ether	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Heptane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Trichloroethene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Ethyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methanethiol	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
Toluene	1.0	0.004	1.5	0.006	<1.0	0.006	1.5	0.006
Ethyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Trichlorofluoromethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Propyl benzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Octane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Propyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:34 – 11:34		---		09:00 – 10:00		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
1,2-Dibromoethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
n-Butyl acetate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Tetrachloroethene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
Ethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
m-/p-Xylene	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
o-Xylene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Nonane	1.0	0.006	<1.0	<0.006	<1.0	0.008	<1.0	<0.006
Ethanethiol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
alpha-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Styrene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
beta-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Decane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
m-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007

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Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:34 – 11:34		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
p-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
d-Limonene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
o-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
n-Butyl benzene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Undecane	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
1-Butanethiol	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
1,3,5-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
1,2,4-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Terpenes ^{Note 1}	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
Xylenes ^{Note 2}	3.0	0.01	<3.0	<0.01	<3.0	<0.01	<3.0	<0.01
Dichlorobenzenes ^{Note 3}	3.0	0.02	<3.0	<0.02	<3.0	<0.02	<3.0	<0.02
n-Hexane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chlorobenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

6. VARIATION ORDER NO. 04



Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-115		HK1536183-116		HK1536183-117		HK1536183-118	
Client ID	F9-5		Blk-6-1		F5-5		Blk-6-2	
Sampling Date	15-02-16		15-02-16		16-02-16		16-02-16	
Sampling Time	10:34 – 11:34		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Methyl chloride	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
1,1,2,2-Tetrachloroethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,2,4-Trichlorobenzene	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,1,2-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006

Note:

1. Terpene is the sum of the result of alpha-Pinene and beta-Pinene.
2. Xylene is the sum of the result of o-xylene, m-xylene and p-xylene.
3. Dichlorobenzene is the sum of the result of o-Dichlorobenzene, m-Dichlorobenzene and p-Dichlorobenzene.



VARIATION ORDER NO. 02
Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	09:00 – 10:00		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Dichlorodifluoromethane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Vinyl chloride	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methanol	100	0.1	<100	<0.1	<100	<0.1	<100	<0.1
Ethanol	100	0.2	<100	<0.2	<100	<0.2	<100	<0.2
Dimethyl sulfide	1.0	0.003	3.4	0.009	<1.0	<0.003	15.8	0.044
Carbon disulfide	1.0	0.003	<1.0	<0.003	<1.0	<0.003	2.1	0.007
Methylene chloride	1.0	0.004	2.2	0.008	<1.0	<0.004	4.0	0.015
Chloroform	1.0	0.005	9.0	0.048	<1.0	<0.005	23	0.123
Methyl propionate	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
2-Butanol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
1,1,1-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
1,2-Dichloroethane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Benzene	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003

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Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	09:00 – 10:00		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Carbon tetrachloride	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
Di-n-propyl ether	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Heptane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Trichloroethene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Ethyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methanethiol	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
Toluene	1.0	0.004	<1.0	<0.004	<1.0	<0.004	2.2	0.009
Ethyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Trichlorofluoromethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Propyl benzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Octane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Propyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	09:00 – 10:00		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
1,2-Dibromoethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
n-Butyl acetate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Tetrachloroethene	1.0	0.007	2.1	0.016	<1.0	<0.007	183	1.357
Ethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
m-/p-Xylene	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
o-Xylene	1.0	0.005	1.2	0.006	<1.0	<0.005	<1.0	<0.005
n-Nonane	1.0	0.006	2.1	0.012	<1.0	<0.006	<1.0	<0.006
Ethanethiol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
alpha-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Styrene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
beta-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Decane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
m-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	09:00 – 10:00		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
p-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
d-Limonene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
o-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
n-Butyl benzene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Undecane	1.0	0.007	1.3	0.009	<1.0	<0.007	<1.0	<0.007
1-Butanethiol	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
1,3,5-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
1,2,4-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Terpenes ^{Note 1}	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
Xylenes ^{Note 2}	3.0	0.01	<3.0	<0.01	<3.0	<0.01	<3.0	<0.01
Dichlorobenzenes ^{Note 3}	3.0	0.02	<3.0	<0.02	<3.0	<0.02	<3.0	<0.02
n-Hexane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chlorobenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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Volatile Organic Compounds (VOCs) (Con't)

Sample ID	HK1536183-119		HK1536183-120		HK1536183-121		HK1536183-122	
Client ID	F8-5		Blk-6-3		F1-5		Blk-6-4	
Sampling Date	17-02-16		17-02-16		18-02-16		18-02-16	
Sampling Time	09:00 – 10:00		---		09:00 – 10:00		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Methyl chloride	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
1,1,2,2-Tetrachloroethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,2,4-Trichlorobenzene	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,1,2-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006

Note:

1. Terpene is the sum of the result of alpha-Pinene and beta-Pinene.
2. Xylene is the sum of the result of o-xylene, m-xylene and p-xylene.
3. Dichlorobenzene is the sum of the result of o-Dichlorobenzene, m-Dichlorobenzene and p-Dichlorobenzene.



Volatile Organic Compounds (VOCs) (Con't)

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 – 09:25		---		13:10 – 14:10		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Dichlorodifluoromethane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Vinyl chloride	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methanol	100	0.1	<100	<0.1	<100	<0.1	<100	<0.1
Ethanol	100	0.2	<100	<0.2	<100	<0.2	<100	<0.2
Dimethyl sulfide	1.0	0.003	<1.0	<0.003	<1.0	0.015	<1.0	<0.003
Carbon disulfide	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methylene chloride	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chloroform	1.0	0.005	3.4	0.018	<1.0	<0.005	<1.0	<0.005
Methyl propionate	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
2-Butanol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
1,1,1-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
1,2-Dichloroethane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Benzene	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003

**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 - 09:25		---		13:10 - 14:10		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Carbon tetrachloride	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
Di-n-propyl ether	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Heptane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Trichloroethene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Ethyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methanethiol	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
Toluene	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Ethyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Trichlorofluoromethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Propyl benzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Octane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Propyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 - 09:25		---		13:10 - 14:10		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
1,2-Dibromoethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
n-Butyl acetate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Tetrachloroethene	1.0	0.007	16.9	0.126	<1.0	<0.007	<1.0	<0.007
Ethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
m-/p-Xylene	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
o-Xylene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Nonane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Ethanethiol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
alpha-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Styrene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
beta-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Decane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
m-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007

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Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 - 09:25		---		13:10 - 14:10		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
p-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
d-Limonene	1.0	0.006	3.4	0.021	<1.0	<0.006	<1.0	<0.006
o-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
n-Butyl benzene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Undecane	1.0	0.007	1.1	0.008	<1.0	<0.007	<1.0	<0.007
1-Butanethiol	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
1,3,5-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
1,2,4-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Terpenes ^{Note 1}	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
Xylenes ^{Note 2}	3.0	0.01	<3.0	<0.01	<3.0	<0.01	<3.0	<0.01
Dichlorobenzenes ^{Note 3}	3.0	0.02	<3.0	<0.02	<3.0	<0.02	<3.0	<0.02
n-Hexane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chlorobenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-123		HK1536183-124		HK1536183-125		HK1536183-126	
Client ID	F9-6		Blk-7-1		F5-6		Blk-7-2	
Sampling Date	19-02-16		19-02-16		22-02-16		22-02-16	
Sampling Time	08:25 - 09:25		---		13:10 - 14:10		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Methyl chloride	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
1,1,2,2-Tetrachloroethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,2,4-Trichlorobenzene	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,1,2-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006

Note:

1. Terpene is the sum of the result of alpha-Pinene and beta-Pinene.
2. Xylene is the sum of the result of o-xylene, m-xylene and p-xylene.
3. Dichlorobenzene is the sum of the result of o-Dichlorobenzene, m-Dichlorobenzene and p-Dichlorobenzene.

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:30 – 09:30		---		08:43 – 09:43		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Dichlorodifluoromethane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Vinyl chloride	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
Methanol	100	0.1	<100	<0.1	177	0.255	<100	<0.1
Ethanol	100	0.2	<100	<0.2	<100	<0.2	<100	<0.2
Dimethyl sulfide	1.0	0.003	5.0	0.014	<1.0	<0.003	18.1	0.050
Carbon disulfide	1.0	0.003	2.2	0.007	<1.0	<0.003	1.7	0.006
Methylene chloride	1.0	0.004	5.3	0.020	<1.0	<0.004	6.2	0.024
Chloroform	1.0	0.005	12.8	0.068	<1.0	<0.005	35.0	0.187
Methyl propionate	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
2-Butanol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
1,1,1-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
1,2-Dichloroethane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Benzene	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:30 – 09:30		---		08:43 – 09:43		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Carbon tetrachloride	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
Di-n-propyl ether	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Heptane	1.0	0.004	<1.0	<0.004	<1.0	0.005	<1.0	<0.004
Trichloroethene	1.0	0.006	2.7	0.016	<1.0	0.026	<1.0	<0.006
Ethyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Methanethiol	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
Toluene	1.0	0.004	<1.0	<0.004	<1.0	0.031	<1.0	<0.004
Ethyl butyrate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Trichlorofluoromethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Propyl benzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
n-Octane	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Propyl propionate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:30 - 09:30		---		08:43 - 09:43		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
1,2-Dibromoethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
n-Butyl acetate	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
Tetrachloroethene	1.0	0.007	15.3	0.114	<1.0	<0.007	28.4	0.211
Ethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	3.1	0.015
m-/p-Xylene	2.0	0.01	<2.0	<0.01	<2.0	<0.01	8.3	0.039
o-Xylene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	2.7	0.013
n-Nonane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Ethanethiol	1.0	0.003	<1.0	<0.003	<1.0	<0.003	<1.0	<0.003
alpha-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
Styrene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
beta-Pinene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Decane	1.0	0.006	<1.0	<0.006	<1.0	0.020	3.2	0.020
m-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007

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**Volatile Organic Compounds (VOCs) (Con't)**

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:30 - 09:30		---		08:43 - 09:43		---	
Analyte	LOR		LOR		LOR		LOR	
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
p-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
d-Limonene	1.0	0.006	<1.0	<0.006	<1.0	0.080	13.2	0.080
o-Dichlorobenzene	1.0	0.007	<1.0	<0.007	<1.0	<0.007	<1.0	<0.007
n-Butyl benzene	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006
n-Undecane	1.0	0.007	<1.0	<0.007	<1.0	0.020	2.8	0.020
1-Butanethiol	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
1,3,5-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005
1,2,4-Trimethylbenzene	1.0	0.005	<1.0	<0.005	<1.0	0.009	1.6	0.009
Terpenes ^{Note 1}	2.0	0.01	<2.0	<0.01	<2.0	<0.01	<2.0	<0.01
Xylenes ^{Note 2}	3.0	0.01	<3.0	<0.01	<3.0	0.052	11.0	0.052
Dichlorobenzenes ^{Note 3}	3.0	0.02	<3.0	<0.02	<3.0	<0.02	<3.0	<0.02
n-Hexane	1.0	0.004	<1.0	<0.004	<1.0	<0.004	<1.0	<0.004
Chlorobenzene	1.0	0.005	<1.0	<0.005	<1.0	<0.005	<1.0	<0.005

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Volatile Organic Compounds (VOCs) (Con't)

Work Order: HK1536183

Sample ID	HK1536183-127		HK1536183-128		HK1536183-129		HK1536183-130	
Client ID	F8-6		Blk-7-3		F1-6		Blk-7-3	
Sampling Date	23-02-16		23-02-16		24-02-16		24-02-16	
Sampling Time	08:30 – 09:30		---		08:43 – 09:43		---	
Analyte	LOR							
	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)	ppbv	Specific Emission Rate (ug/m ² .s)
Methyl chloride	1.0	0.002	<1.0	<0.002	<1.0	<0.002	<1.0	<0.002
1,1,2,2-Tetrachloroethane	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,2,4-Trichlorobenzene	1.0	0.008	<1.0	<0.008	<1.0	<0.008	<1.0	<0.008
1,1,2-Trichloroethane	1.0	0.006	<1.0	<0.006	<1.0	<0.006	<1.0	<0.006

Note:

1. Terpene is the sum of the result of alpha-Pinene and beta-Pinene.
2. Xylene is the sum of the result of o-xylene, m-xylene and p-xylene.
3. Dichlorobenzene is the sum of the result of o-Dichlorobenzene, m-Dichlorobenzene and p-Dichlorobenzene.

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Work Order: HK1536183

Appendix 1

Site Conditions and Observations

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VARIATION ORDER NO. 01

Work Order: HK1536183

1st Sampling Event (All Test Parameters)

Date: 18th November, 2015

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F9-3	09:25	30.0	75.6	0	NA	Sunny
F10-3	10:41	30.2	61.5	0.5	271	Sunny
F11-3	15:41	31.0	66.9	0.4	245	Sunny
F12-3	13:55	29.4	63.8	2.0	093	Sunny

Date: 19th November, 2015

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F4-3	14:40	31.2	61.9	2.5	135	Sunny
F5-3	11:51	28.8	72.4	1.2	066	Sunny
F6-3	13:23	29.6	65.7	1.5	092	Sunny
F7-3	10:25	28.5	76.2	1.4	076	Sunny
F8-3	09:07	27.6	81.3	1.2	057	Sunny



Work Order: HK1536183

VARIATION ORDER NO. 01

Date: 20th November, 2015

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
A1-3	11:23	26.3	75.2	1.9	084	Sunny
F1-3	09:46	26.6	76.0	0.7	202	Sunny
F2-3	15:14	27.3	77.5	1.1	101	Sunny
F3-3	13:03	27.6	72.1	0.7	204	Sunny

**VARIATION ORDER NO. 01****2nd Sampling Event (All Test Parameters)****Date: 25th November, 2015**

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F9-4	09:55	27.9	69.9	1.2	326	Sunny
F10-4	10:24	27.3	54.8	1.0	076	Sunny
F11-4	15:37	24.8	58.1	4.4	066	Sunny
F12-4	13:42	27.9	49.9	1.2	062	Sunny

Date: 26th November, 2015

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F4-4	16:03	23.1	36.1	2.4	019	Fine
F5-4	12:51	22.1	31.4	2.4	066	Fine
F6-4	14:34	24.1	28.2	2.1	023	Fine
F7-4	11:26	21.0	42.4	2.5	357	Fine
F8-4	10:00	19.4	47.8	1.4	078	Fine

**VARIATION ORDER NO. 01****Date: 27th November, 2015**

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
A1-4	10:45	19.4	36.3	2.5	044	Sunny
F1-4	12:42	22.5	41.8	2.3	057	Sunny
F2-4	14:56	23.2	40.1	0.8	321	Sunny
F3-4	09:20	19.4	37.6	1.8	336	Sunny



VARIATION ORDER NO. 02

Work Order: HK1536183

1st Sampling Event

Date: 15th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F9	10:20	13.5	55.3	0.8	026	Cloudy

Date: 16th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F5	08:50	11.5	52.7	1.5	034	Cloudy

Date: 17th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F8	08:30	13.4	56.2	1.6	050	Cloudy

Date: 18th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F1	08:55	14.1	74.6	1.2	343	Cloudy

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2nd Sampling Event

Work Order: HK1536183

Date: 19th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F9	08:27	16.2	85.0	0.6	043	Cloudy

Date: 22nd February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F5	08:40	16.5	82.7	1.6	180	Cloudy

Date: 23rd February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F8	08:15	15.3	98.1	1.0	010	Cloudy & Occasional Light Rain

Date: 24th February, 2016

Sample ID	Time	Ambient Temperature (°C)	Relative Humidity (%)	Wind Speed (m/s)	Wind Direction (degree)	Weather Condition
F1	08:25	12.3	75.6	1.1	029	Cloudy

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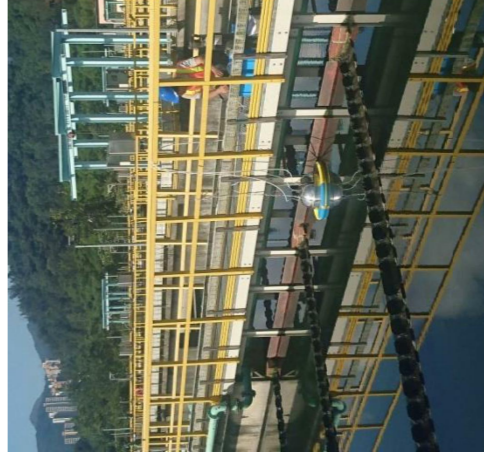
Appendix 2 Sampling Activity (Photo) at Different Sampling Locations



VARIATION ORDER NO. 01

1st Sampling Event (All Test Parameters)

Date: 18th November, 2015



Location: F9



Location: F10



Location: F11



Location: F12



VARIATION ORDER NO. 01

1st Sampling Event (All Test Parameters) (Con't)

Date: 19th November, 2015

Work Order: HK1536183



Location: F4



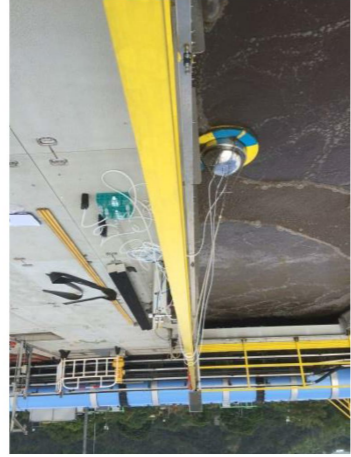
Location: F5



Location: F6



Location: F7



Location: F8

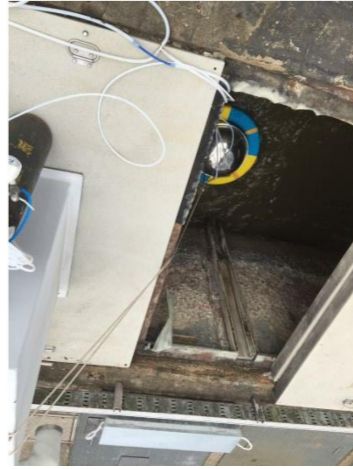


VARIATION ORDER NO. 01

1st Sampling Event (All Test Parameters) (Con't)

Date: 20th November, 2015

Work Order: HK1536183



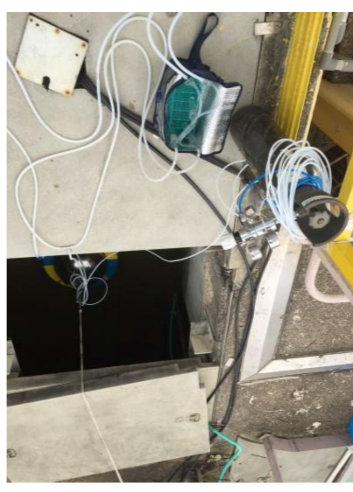
Location: A1



Location: F1



Location: F2



Location: F3

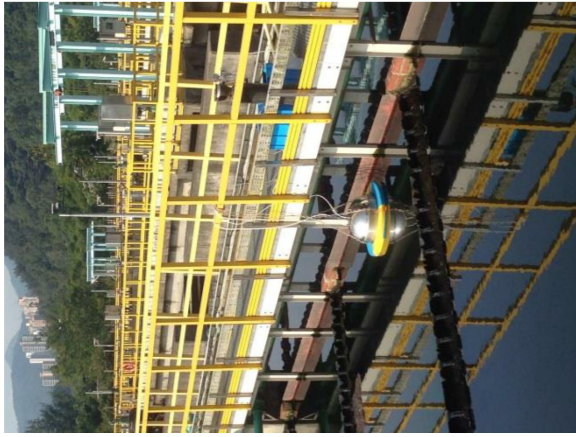


VARIATION ORDER NO. 01

2nd Sampling Event (All Test Parameters)

Date: 25th November, 2015

Work Order: HK1536183



Location: F9



Location: F10



Location: F11



Location: F12



VARIATION ORDER NO. 01

2nd Sampling Event (All Test Parameters) (Con't)

Date: 26th November, 2015

Work Order: HK1536183



Location: F4



Location: F5



Location: F6



Location: F7



Location: F8

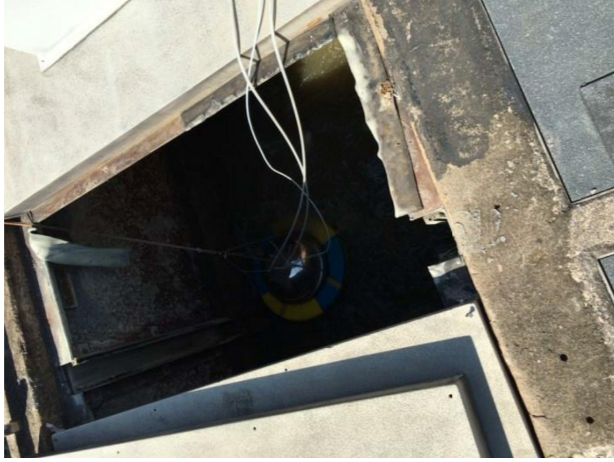


VARIATION ORDER NO. 01

2nd Sampling Event (All Test Parameters) (Con't)

Date: 27th November, 2015

Work Order: HK1536183



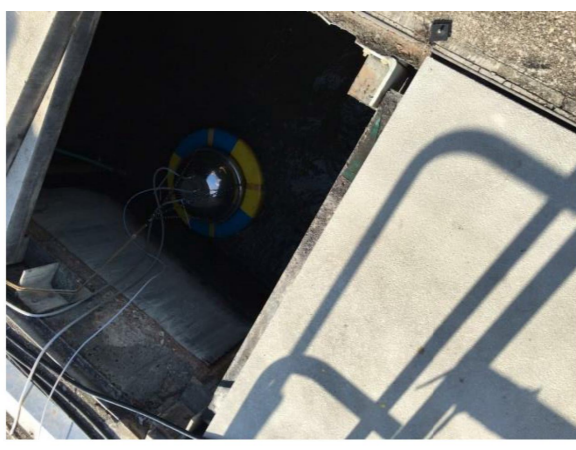
Location: A1



Location: F1



Location: F2



Location: F3

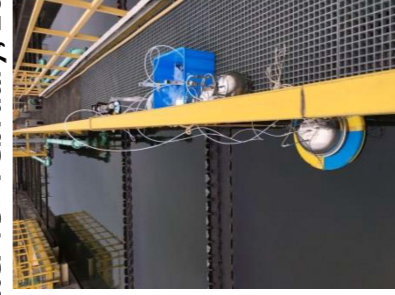


VARIATION ORDER NO. 02

1st Sampling Event

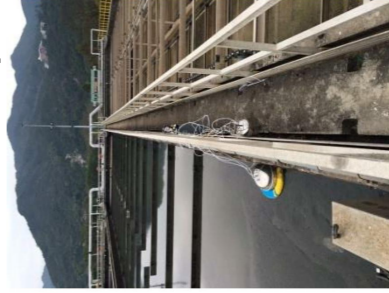
Work Order: HK1536183

Date: 15th February, 2016



Location: F9

Date: 16th February, 2016



Location: F5

Date: 17th February, 2016



Location: F8

Date: 18th February, 2016



Location: F1

Date: 18th February, 2016



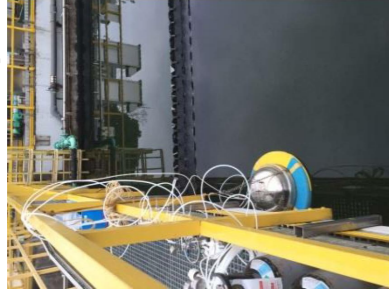
Location: F1



2nd Sampling Event

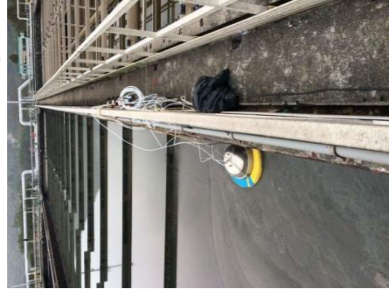
Work Order: HK1536183

Date: 19th February, 2016



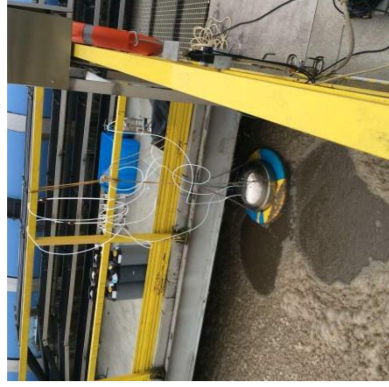
Location: F9

Date: 22nd February, 2016



Location: F5

Date: 23rd February, 2016



Location: F8

Date: 24th February, 2016



Location: F1

Date: 24th February, 2016



Location: F1



Work Order: HK1536183

Appendix 3 Sampling and Analysis Equipment (Photo)



Work Order: HK1536183



Aldehyde (Formaldehyde & Acetaldehyde) Sampler



Analysis Equipment for Aldehyde



Ammonia Sampler



Analysis Equipment for Ammonia



Carbon Monoxide and Nitrogen Dioxide Analyser



Hydrogen Sulphide (H₂S) Analyser



Nitrogen Dioxide Passive Sampler



Analysis Equipment for Nitrogen Dioxide (Passive Sampler)

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Work Order: HK1536183



Sulphur Dioxide Sampler



Analysis Equipment for Sulphur Dioxide



VOC Sampler (Canister)



Analysis Equipment for VOC



PAHs Sampler



Analysis Equipment for PAHs



Flux Hood

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